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ABSTRACT

A study examined how periodic seminars might contribute to solving the basic problem of covering knowledge and skills in a given area of study for adult learners in a distance education setting. Participants were enrolled in one of two introductory courses: Psychology 206 and Administration 232. Three seminars per course were offered in conjunction with, and as an optional supplement to, the regular home-based course package. Preliminary data indicated that those learners who attended seminars tended to do better in terms of course-related performance on a number of dimensions than those who did not attend seminars. Results were strictly correlational and it was not possible to determine whether seminars attracted higher performance learners or whether seminars contributed to higher performance. Very little support was found for the contention that "isolated" learners in the open higher education context would attend seminars on any pretext for socially related reasons. Results did indicate that if seminars can be made relevant and course-specific, up to one-third of those invited might attend. (Author/YLB)

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RESEARCH REPORT SERIES

Seminars as an Instructional Strategy in Distance Education

Geoff Peruniak

REDEAL Research Report #6

Project REDEAL

Research and Evaluation of Distance Education for the Adult Learner

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Project REDEAL

Seminars as an Instructional Strategy in Distance Education

Geoff Peruniak

REDEAL Research Report #6

October, 1980

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Abstract

The preliminary data from this study indicated that those learners who attended seminars tended to do better in terms of course-related performance on a number of dimensions than those who did not attend seminars. Results from this study were strictly correlational and it was not possible to determine whether seminars attracted higher performance learners or whether seminars contributed to higher performance. There was very little support for the contention that "isolated" learners in the open higher education context would attend seminars on any pretext for socially-related reasons. However, the results did indicate that if seminars can be made relevant, up to one-third of those invited may attend. Thus, seminars are one way instructors can tailor a standard home-based course package to the needs and concerns of the changing and diverse student body.

Seminars as an Instructional Strategy in Distance Education

It is probably fair to say that the field of open and distance higher education and correspondence study has, until recently, been more concerned with getting the job done and surviving, than engaging in various types of research. Research appears to be a luxury in most institutions in this field. However, what has begun as a luxury is turning out to be a necessity, as institutions seek clearer directions about the future.

The call for more research in this field, specifically in the area of methodologies, is not new (e.g. Childs, 1971; Holmberg, 1975; Ljosa, 1978). In open education a systematically gathered data base which then feeds into decision making processes regarding methodologies, appears to be the exception rather than the rule. The problem which these methodologies address is: how best to convey the knowledge and skills of an area of study commensurate with the needs, wishes, and abilities of adult learners, who through preference or happenstance (e.g. geographic factors, time, expense) choose to pursue higher education outside of the walls of the traditional university.

There are many important factors which help to solve the problems of open education such as audio-visual components, tutor support networks, study strategies, two-way communications via the telephone, and pacing options. This paper describes the preliminary findings of a research study concerned with the effect of seminars on the success of adult learners in an open university. The study addressed the issue of losses and gains, particularly with respect to motivation, in delivering periodic seminars within a home-based course of study. Beyond the role of seminars as an instructional

strategy, the study looked at which learners were attracted to seminars and how this related to learner performance in the course. It is ironic that researchers in open education, where the student body is so heterogeneous (McIntosh, 1978) in relation to traditional universities, have spent so little time investigating trait-treatment interaction (Berliner and Cahen, 1973). Finally, the study describes the evolution of the research process in addressing the above issues as the research "tuned" into the open education context.

As an instructional strategy, the seminar forms a subset of the more generic term, group contact, and more specifically, face-to-face group contact. Face-to-face group contact refers to the interaction of two or more persons, in person, for the purpose of communicating. Therefore, important methods in open education such as audiovisual link-ups by way of teleconferencing, satellite, sideband radio and conference telephone calls are excluded from this discussion. Figure 1 portrays a variety of forms of group contact methodologies in open education and indicates where seminars fit within this rubric. Thus, in this model self-help study groups are a form of face-to-face contact, but they are different and distinct from seminars. For purposes of this paper the definition of the seminar method will be that used by Gall and Gall (1976). The seminar method "occurs when; 1) a group of persons, usually in the roles of moderator/leader and participant; 2) assembles as at a designated time and place; 3) to communicate interactively; 4) using speaking, non-verbal, and listening processes; 5) in order to achieve instructional objectives." (Pages 168 - 169) This definition implies that it is a face-to-face gathering.

Figure 1 goes about here

The open education system differs from the traditional system by being less restrictive in terms of qualifications for entry, is aimed at the needs of adult learners, is self-paced and usually independent of distance from the mother institution, often enrolls learners throughout the year, and charges a lower tuition fee. While some progress is being made (Peters, 1978), it is fair to say that relatively little is known about the various kinds of adult learners in open education systems. It is clear that research in open education is still at the formative stage of theory building. Part of the purpose of this study was to extend the data base from which, and upon which models and theories could be tested.

There is a belief among a substantial number of researchers and administrators in institutions of open education that group contact in the form of seminars, self-help study groups or study circles, can play a humanizing, motivating and learning role for learners in conjunction with the regular home-based delivery mode (Wangdahl, 1977). Specifically, it can provide opportunities for enrichment of course materials, laboratory practice in specific courses, training and practice in the oral tradition, social facilitation and enjoyment, "how-to" techniques for the course, cross-fertilization of ideas, and immediate feedback on content-related matters. Harrington (1977) reported that high on the list of reasons for failure and withdrawal is loneliness that brings discouragement to students studying on their own. Furthermore, on a questionnaire survey carried out in the present research setting, Athabasca University professional staff ranked group contact among the five most important research issues.

As portrayed in Figure 1, there are many dimensions of group contact that can be examined for their impact on learner success. Most of these dimensions have not been tested systematically in traditional settings of higher learning, let alone in open education, but seminars have attracted much of what attention there has been (Gaff, 1975; Gall & Gall, 1976; McKeachie, 1975, and; Wangdahl, 1977).

Although traditional universities have begun to examine the effects of group contact such as seminars within their own courses, their focus is invitably upon the nature, and detail and organization of the seminar. The issue of whether to hold seminars at all does not appear to be a serious option for many courses in the traditional setting. On the other hand, in a number of open education institutions, the majority of courses are delivered with the implicit understanding that seminars or group discussions will not be part of the course. In one of the few surveys of the field, Wangdahl (1977) compiled studies which took a preliminary look at the effects of the middle ground between these two extremes. Although some of the surveyed studies were concerned with face-to-face contact other than seminars (e.g. self-help study groups, "the handicap of isolation", combined education), a number were relevant here.

In terms of perceived learner need, Kustermann (1970), by way of a questionnaire, reported that 39% of 3,000 students who responded, indicated that seminars would provide the most valuable contact with this particular correspondence school. Lest we over-simplify the idea

of seminars, Mueller (1974) reported that at least on one dimension, that of socialization effects, approximately 50% of 1,698 students returning a questionnaire indicated that the opportunity to socialize in a seminar was of no importance to them. Both investigators refer to significant groups within the learner population who wish to work by themselves without face-to-face contact.

Bolt, Bohm, and Schwier (1974), investigated the motivational influence of seminars on learners in open education. Data were obtained through questionnaires to 1,818 students, 64% (1,164) of whom returned the questionnaire. These investigators controlled for subject matter area and type of enrollment. They discovered that the drop-out rate in the group receiving the home-based package alone was 36%. The drop-out frequency in the group receiving the home-based package in addition to three seminars was 30%, and in the group receiving regular seminars with the home-based package, the frequency drop-out rate was 13%. It is not clear whether these groups were randomly assigned or whether they self-selected the mode of receiving the course. These investigators also found that students who were pleased with the course tended to make more positive comments about the seminars as a valuable addition.

In summary, there would appear to be a sizeable proportion of open education learners who have positive perceptions about group contact. Obviously, this is not the same as showing up at a seminar. However, data also suggest than when combined with the home-study package, seminars may motivate students to stick with the course rather than drop-out. Finally,

the rest of the student body may be thought of in terms of a proportion that would not benefit from seminars at all and other groups who would benefit depending upon the nature of the seminars (e.g. well organized and course specific).

In terms of trait-treatment interaction, Ness (1976) analyzed the results of 1,984 questionnaires in terms of the type of learners who chose a combination of group contact and home-based package and those who chose only the home-based package. In general terms, Ness found: 1) rural males tended to choose a combination; 2) older learners tended to choose a combination, and; 3) male and female learners with more educational background tended to choose the home-based package alone. It was not clear from the review whether group contact in this investigation is synonymous to seminars as defined in this paper.

As might be expected at the investigative frontier of any field, the findings from these studies may have limited generality. Most are based on the analysis of questionnaire data and a complete description of the control or randomization of intervening variables has been largely ignored or sketchily described. In addition, these studies were done in Europe or Scandanavia where learner populations may differ from those in North America. However, it is upon these phenomenological and survey descriptions that more experimental designs are based.

To summarize, three essential elements in the educational process of conventional university education have been described by Sewart (1975) as: 1) a lecture or tutorial component; 2) a course of directed reading, and; 3) discussion of subject matter with fellow students (and presumably,

instructors). In open education, a wide variety of methods have been employed to provide these components or suitable alternatives. This paper focusses on the last component and examines how periodic seminars might contribute to solving the basic problem of conveying knowledge and skills in an area of study to adult learners in a non-traditional setting.

HYPOTHESES

Major Hypotheses

The set of hypotheses described below evolved as a result of testing various assumptions about the setting in which the research took place and the participants who were involved. As the research progressed, it became clear that it would not be possible to test some of the original hypotheses, while others could only be partially tested. Thus, the focus of the study shifted to some degree and this change of focus was reflected in changes to the design described in Section C. Section C also describes the rationale for the modifications to both the hypotheses and the design. The hypotheses may be divided into two sets: the first were concerned with the course-related motivational effects of seminars, and the second with attendance and seminar-related motivation.

Course-Related Motivational Hypotheses

Original

Based on the assumption that group contact seminars are reinforcing events, a contingent seminar group (CSG) should exhibit a higher rate of completion in the course than either a non-contingent seminar group (NCSG) or a no-seminar group (NSG, i.e. control group).

First Revisions

Psychology 206. Those participants attending seminars (seminar group) should have a significantly higher completion rate and a faster rate of progress through the course than a no-seminar control group.

Administration 232. Those Participants attending seminars should have a signigicantly higher course completion rate and a faster rate of progress through the course than non-attending learners who received invitations.

Second Revisions

Psychology 206. Those participants attending seminars should have a significantly higher course completion rate and a faster rate of progress through the course than non-attending learners who received invitations.

Attendance Hypothesis

This hypothesis is related to Psychology 206 and Administration 232; it states:

> That learners can be attracted to a seminar when attendance is not obligatory and when material covered in the seminar is not given credit.

METHOD

As in any relatively unchartered field of research, carefully controlled, statistically-based designs are a delusion, particularly when they are based on a number of untested assumptions about variables in the setting, including the participants. An "experimental" design in a quickly changing, rapidly growing, and relatively recent innovation such as open education must not substitute artifical rigor for badly needed flexibility. Bass (1974) cautioned applied researchers:

> "We rush to institute controls in our data gathering before we learn what to control. Thus we may control age of subjects when age is unrelated to either mean differences between samples or within samples. At earlier stages in a line of investigation, finding out what to control is far more important than control for control's sake." (P. 875)

The designs explained in this section evolved from an interaction between the original hypotheses, constraints imposed by the research project and constraints imposed by the setting. It is interesting that in at least one case where the design was thought to test the hypotheses, what was initially and sometimes only tested was the underlying assumptions upon which that design was formulated. As will be described below, a number of these assumptions proved to be erroneous (e.g. continuing course enrollments projected on the basis of previous years' enrollments).

Setting

The research was conducted in an open education system called Athabasca University. This non-traditional institution was the fourth university established in the province of Alberta, Canada, which came into existence as an undergraduate, degree-granting institution in 1975. Its status as a permanent university occured under the Universities Act of May 18, 1977.

Modelled in part on the Open University of the United Kingdom, Athabasca University specializes in distance and open education, involving a variety of media: television, audiotape, telephone and print. Athabasca University provides both non-credit and credit courses for undergraduate degrees and serves adult learners who cannot or do not wish to attend a conventional university.

Participants

Participants in the research were enrolled in one of two introductory courses: Psychology 206 and Administration 232.

Psychology 206. This was a basic introductory psychology course worth six credits and learners enrolled in this course were given the normal 12 months to complete it. There were four examinations in the course. Approximately half of the learners enrolled in this course took it for career reasons. The remainder were interested in the course for educational or personal reasons in about equal numbers. The majority (75%) of the learners chose Athabasca University because of personal time and financial constraints. Over half (51.6%) of the learners in this course resided in the Edmonton region. Approximately 30% of the learners resided in rural areas and the remainder were spread about evenly in the other urban centres in Alberta. In terms of age, learners in the 206 course may be thought of as being distributed on an almost perfect normal curve with the majority (53.1%) falling between the ages of 25-34. In terms of sex, there were more females (84.4%) than males (15.6%). The majority of learners were classified as married or single (90.6%) and the distribution was almost equal between the two categories.

On their application form, learners were asked to state their learning preference in terms of four categories, on their own, in a group, a combination, or not sure. For learners in this study the distribution was respectively 42.2%, 7.8%, 31.3% and 18.8%.

Exactly one-half of the learners in this study were using the course for transfer: credit to other universities. Almost one-third (32.8%) of these people were nursing transfer students. Over one-third (35.9%) of the learners in this sample held a college diploma and over half the sample (54.7%) had some college credit.

Administration 232. This was an introductory course on basic administrative processes. There was one final exam. The course presented theories of administration that were applicable to the public and private sectors and examined the theories with respect to current practice, focussing primarily on the learner's experience.

Most participants (60.7%) sampled in this study were male, yet there were a substantial number of females (39.3%). As in Psychology 206, the majority of learners (50.8%) fell between the ages of 25 to 34. However, unlike the 206 course, there were a substantial number of older learners in this course. Over one-third (34.5%) of the learners fell between the ages of 35 to 54. As would be expected, the majority (80.3%) of the learners were enrolled in the Bachelor of Administration degree program. Very few learners held either a college diploma or a university degree (11.5%), however 23% had had some previous university courses and 21.3% had finished technical school. Eighteen percent had some college credit. In short, 41% held some college or university credit, but few had completed either. In terms of their preferred learning situation, almost half (49.2%) of the learners indicated that some combination of learning in a group and on their own was preferable. Another third (32.8%) indicated that they

preferred to learn on their own. Most learners were married (67.2%) with 23% indicating single marital status. As in Psychology 206, the majority of people (68.9%) indicated their reason for attending university as career related. The next largest group (19.7%) indicated they were interested in attending university for personal reasons. Athabasca University was chosen by 42.6% of the learners because of their time constraints. Other constraints such as distance, educational background or financial situation were fairly evenly distributed: 14.8%, 21.3% and 18%, respectively. Once again, the majority of students resided in the Edmonton region (41%) while 26.2% resided in rural locations. Most of the remaining learners were either outside Alberta (13.1%) or resided in the other major urban centre, Calgary (11.5%)

Original Design

The original design of the study consisted of having all of the new students in Psychology 206 for October, 1979, randomly assigned to one of three seminar conditions. The contingent seminar group would be invited to three seminars during the year, only after an eligibility requirement and based upon course progress had been met (e.g. handing in the block essay or project and completing previous course blocks). The non-contingent seminar group would be invited to all three seminars, regardless of their progress in the course. Finally, the no-seminar group would represent the current existing practice in the course and would attend no seminars.

First Design Revisions and Expansion of Project

The First design revision occurred when it became obvious that the actual enrollments in 206 were only half of what had been predicted. This factor, together with the high drop-out rate (approximately 50%) guaranteed that the final N would be too low to make any reasonable comparisons. Accordingly, the first design alteration called for the pooling of October and November learners and randomly assigning them to one of only two conditions: 1) seminar group (non-contingent), or 2) control group (no seminars).

The advantages of this design change were three fold. First, by utilizing two months enrollment the N was boosted in each group. Second, by collapsing the groups across seminar conditions (i.e. dropping the contingent seminar group) the N was further increased per group. Thirdly, the management process that would have been involved with the contingent seminar group (e.g. sending letters to only those eligible, determining eligibility, controlling eligibility) was avoided. Obviously, the disadvantage to this design alteration was the dropping of the contingent alternative and any information of a motivational nature relating to it.

When the enrollments in Psychology 206 became problematic, the project was expanded to include learners in Administration 232, a course which was drawing more enrollment that Psychology 206. The expansion of the project was done to preserve the original three-groups design. Thus, October and November enrollment in Administration 232 were randly assigned to one of three conditions: contingent seminar

condition, the non-contingent seminar condition and the control group.

Second Design Revisions

In the process of carrying out the research, it became clear that we were attracting negligible numbers to the seminars, regardless of condition. In a manner analogous to the researcher who asks: "How many times should we test the hypothesis that man is mortal?", we asked: "How many times is it necessary to demonstrate under the existing design constraints that only negligible numbers will be attracted to the seminars?" In an effort to obtain more data from the research study than simply the difficulty of attracting learners, some basic assumptions regarding seminar format were changed and, in addition, invitations were sent to a wider population of Psychology 206 and Administration 232 learners than was previously the case.

Description of Seminars

Invitations to seminars in Psychology 206 and Administration 232 were sent out approximately one month before the event. A response card was also included in order that learners could make their intentions of attending known before the actual seminar.

The initial seminars for Psychology 206 and Administration 232 were designed as enrichment experiences for the students. Material covered in the seminar was not explicitly tested on examination in the course.

The seminars had a format that corresponds to Table 1. In brief, in the first activity was a welcome and introduction by the seminar leader(s); the second, was the lead comments about the seminar project and the experiment by the research associate, and; third, the session got underway. A coffee break occurred approximately one and three-quarter hours later. The seminar leader gave a summary towards the end of the session, feedback forms were distributed, filled in and collected, and the session ended.

Seminar sessions were one-half day long, beginning at 9:30 a.m. and going until 12:30 p.m. All seminars were held at the Alberta Vocational Centre located in Edmonton. The decision to hold the seminars in Edmonton was based on the geographical distribution of students within the courses.

In the case of Psychology 206, the seminars were given by a resource person in combination with the coordinator of the course. In Administration 232 the seminars were given by a course tutor.

The decision to hold three seminars per course was largely arbitrary and depended upon delivery resources, enrollment patterns, preceived necessity and convenience. The locale for the seminars remained fixed for both courses. All seminars were offered in conjunction with, and as an optional supplement to the regular home-based course package.

Table 1 goes about here

Changes to the seminar content occurred after the first Psychology 206 seminar and following the second Administration 232 seminar. Instead of enrichment, the seminar content turned to one of general and specific "how-to's" of the course. The attempt at this point was to try a topic which had some probability of attracting students to a seminar. Instead of general interest themes (e.g.) the lie detector in psychology), the new seminars dealt with more concreted issues such as essay and laboratory preparation, concentration and organizational study strategies. The topics concerned problems which had been identified within the course that could be worked on in the session with students. As before, seminars were not obligatory nor was material covered in the seminar tested separately on the exams. Naturally, however, skills and tips picked up in the latter seminars would presumably help students with the course. In addition to the content change and the opportunities for more recent enrollees to attend the seminar, the invitations were spruced up both in visual impact and format.

RESULTS

This section presents results from data analyses on tests of original and revised hypotheses. The analysis of course completion, rate of progress, and course performance data occurred after seven months of a 12-month course for Psychology 206 and after six months of a 6-month course for Administration 232. In the latter course, data were still incomplete because of the two to three month lag in system tracking and processing that occurs once a student has written the final exam. Data on seminar attendance is final and complete for both courses.

General Findings

There were two general findings that concerned the original hypotheses. Neither were a result of a direct test of the hypotheses. First, the data attested to the difficulty in getting students to attend seminars under either the contingent or noncontingent conditions. By averaging the percentage attendance figures for seminars one and two of Administration 232 (see Table 7), it can be seen that less than 10 per cent (9.6%) of those invited actually showed up at a seminar. Second, under the present conditions of this open system (e.g. continuous enrollment, high drop-out rate), it was problematic to examine independent research conditions of more than

two groups, if subject matter and time of enrollment were variables that needed to be controlled. In the case of Psychology 206 with the second highest course enrollments in the University, there were still insufficient numbers to distribute randomly to three groups.

Table 2 presents a summary of course progress and performance data averaged across both courses for the first credit block. Seminar attenders were course enrollees who attended at least one seminar and non-attenders were those who received invitations but chose not to attend the seminar. The most noteworthy difference between the seminar attenders and non-attenders was the finding that 53% of the seminar attenders had written the first examination at the time of data analysis, while only 33% of the non-attenders had done so. This may provide evidence that seminars served a motivating role, however, course performance is only slightly favored in the seminar attenders group (82.3%) as compared to the non-attenders (79.4%).

Insert Table 2 about here

In terms of seminar attendance, Table 3 provides supporting evidence for the hypothesis that learners can be attracted to a seminar when attendance is not obligatory and when material covered in the seminar is

not separately tested. An average of 6.3 learners attended seminars in which the format consisted of enrichment material. On the other hand, there were an average of 16.3 learners in attendance at seminars in which course-specific formats were employed. In other words, the course-specific format attracted 24.4% of those to whom invitations were issued, while only 8.9% of the learners invited attended seminars whose format was enrichment only.

Insert Table 3 about here.

The results reported below are course-specific and of two types. First, data relating to the original hypotheses are given and this is followed by data relating to revised hypotheses generated through interaction between the original hypotheses and interaction with the setting (e.g. the open university).

Psychology 206 Seminars

Test of the Original Hypotheses. (p. 9 Contingent, Non-Contingent, and Control Groups) Quite simply, these hypotheses were not tested since the unpredicted drop in enrollments precluded an assignment of sufficient numbers to each of the three groups.

Test of the First Revisions. (p.9 . Seminar and No Seminar Groups) There are three sets of data presented in this section. The first set of data pertain to those Fall enrollees who were assigned to the Seminar and No-Seminar conditions. In addition, revisions to the hypotheses and design resulted in a new group of participants (e.g. those enrollees with start dates after the fall) and a new set of data. The third data set is a combination of the first two data sets.

For the first set, Table 4 presents completion and performance data for fall enrollees in the Psychology 206 course. In addition to the Seminar and No-Seminar groups there were two other groups that were included. One group was those who received invitations to attend the seminar but did not show up. These people are referred to in the table as non-attenders who received invitations. The other group is a combination of the control group who did not receive invitations and this latter group who did receive invitations but did not attend. This last group is referred to in the table as "Non-attenders".

Insert Table 4 about here.

It should be noted that because data collection preceded course completion by 5 to 6 months, a follow-up will be done and that these

data are tentative. In essence, the data presented here represent seven months of data collection within a system which allows students approximately one year to complete the course.

Bearing in mind the small N it is interesting that 25% of the seminar attenders group completed the course, whereas 18% of the control group completed and none of the invited group who chose not to attend have completed. In line with the above observation, members of the seminar group were further along (half had completed examination two) than either the control group (no-seminar group, 32% completed exam two) or the invited group (19% completed exam two).

In terms of actual numbers of days to complete the course, there was little difference between groups, with the seminar attenders taking 233 days and the control group people taking 237.6 days.

Table 5 goes here

In going beyond course performance data, Table 5 examines the groupings according to personal characteristics. This data goes beyond the hypotheses to examine differences between those people choosing to attend the seminar and those that chose not to do so.

Of the seminar attenders, half were taking the course for educational reasons, while only 14% of the non-attenders were taking the course for educational purposes. Instead, half of the non-attenders were taking the course for personal reasons. Three out of four of the seminar attenders indicated that time was the most important reason for taking

the course from Athabasca University, whereas 50% of the invited-but-didn't attend group indicated that time was the most important variable. One hundred percent of the seminar attenders lived in the regions where the seminar was given, whereas only 36% of the invited-but-didn't-attend-group resided in the Edmonton area. Half of the seminar group were enrolled in the B.A. program, while only 9% of the invited-but-didn't-group were in that category. Fifty percent of the seminar attender group had college or university experience, whereas only 26% of the invited-but-didn't-attend group had that same experience. Finally, half of the seminar-attending group indicated that they studied for more than 11 hours per week whereas 41% of the invited-but-didn't-attend-group indicated they spent 11 or more hours per week.

Data regarding extensions was not available from the university computer and consequently was not tested. The manual manipulations required to obtain this data was beyond the resources of the research project. Hypothesis two (final course completion data) could not be summatively tested because, as indicated above, the course was not completed.

Table 6 goes here

Table 6 compares seminar attenders and non-attenders who entered the research study after the Fall as a direct result of the revisions to the hypotheses and design. In accordance with the first set of data, seminar attenders were those people who attended at least one

seminar during the course. Non-attenders attended no seminars. Note that there is no control group in this second set of data. In essence, all enrollees received invitations to attend and what is being compared here is those people who attended as opposed to those who did not.

The completion and rate of progress performance data is still very much incomplete, since only 5% of the seminar attenders have completed and only 9% of the non-attenders have completed. Nevertheless, over half (53%) of the seminar attenders had written the first examination, while only 35% of the non-attenders had written the first examination as of the data compilation date (seven months in course).

Table 7 goes here

In terms of personal data, Table 7 indicated that the majority (58%) of the seminar attenders were in the Nursing transfer program while only 26% of the non-attenders were in that program. Furthermore, the majority of the seminar attenders (84%) indicated that they were taking the course for career-related reasons and only 34% of the non-attenders were taking the course for career-related reasons. On the other hand, 34% of the non-attenders were taking the course for personal reasons, while this was true for only 5% of the seminar attenders. With respect to geographical distribution, it was not surprising that the majority of seminar attenders (84%) came from the region in which the seminar was given. Finally, there was a higher percentage of rural learners in the non-attenders group (36%) than in the seminar attenders group (11%).

Table 8 goes here

Table 8 presents completion and progress data which has resulted from combining the data from both cohorts of learners, specifically those under the first set of revisions and those under the second. The table compares seminar attenders with non-attenders, irrespective of whether an invitation was received, and non-attenders who received invitations but did not attend a seminar. Over half of the seminar attenders had written the first examination (52%) while the percentages were less for non-attenders and non-attenders with invitations (37% and 34%, respectively). Preliminary indications show the seminar attenders to be completing the course faster than learners in the other two conditions. However, the percentages involved are very small.

Table 9 goes here

Table 9 compares the personal characteristics of the cohorts in combination. Once again, the majority of the seminar attenders were enrolled in the Nursing Transfer program (55%) whereas for the non-attenders and non-attenders with invitations, the percentages were 29% and 21%, respectively. A larger percentage of seminar attenders were taking the course for career-related reasons (73%) and only 5% were taking the course for personal reasons. A comparable percentage for non-attenders and non-attenders with invitations were 40%, 36%, and 34%, 40%. A larger percentage of seminar attenders (55%) indicated that time was the major consideration

in choosing Athabasca University than in the non-attenders group (43%) and the non-attenders with invitations (40%). The majority of the seminar attenders (86%) came from the region in which the seminar was delivered and only 9% came from rural regions. Comparable figures for the non-attenders group was 45% local, 30% rural and for the non-attenders with invitations group 38% local and 32% rural.

Table 10 goes here

Test of the Second Revisions. (That learners can be attracted to a seminar when attendance is not obligatory and when material covered in the seminar is not explicitly tested). A summary of data related to this hypothesis is presented in Table 10. It appeared that the switch from an enrichment-only seminar format to a course-specific "how-to" format resulted in a somewhat unclear pattern for Psychology 206. However, for both seminar formats of the "how-to" course specific variety a larger proportion of students attended in comparison to the enrichment-only seminar format. One likely reason for the relatively small turnout in seminar number three is the time interval between the notice of invitation and the date of the seminar (11 days). Furthermore, this seminar was held at a time of year when people were getting ready to begin summer vacations. This educational opportunity may not have been a priority. Looked at in this light the attendance may be considered quite high.

Following each seminar, evaluation forms were distributed to students to rate the seminar according to their dimensions. Ratings were uniformally high across all seminars, and comments when they were given, were always positive.

Table 11 goes here

Administration 232 Seminars

Test of the Original Hypotheses. Table 11 portrays completion and rate of progress data for the contingent group and non-contingent group, control group and seminar attenders, which was a combination of the contingent and non-contingent groups. At the point of analysis there were more seminar attenders who completed the course (55%) than those in the control group (35%). These are the same percentages that occurred for the people who had written the first exam.

Table 12 goes here

Test of the First Revisions. (see Page 9) Table 12 presents the results of completion and rate of progress data for a group of seminar attenders and a group of non-attenders, all of whom received invitations to attend the seminar. At the point of data analysis, 53% of the seminar attenders

had written the first examination. This contrast with only 32% of the non-attenders having written the first examination.

Table 13 goes here

In terms of personal characteristics (see Table 13), the seminar attenders indicated that they were at university for career related areas (80%) more often than non-attenders (68%). More of the non-attenders (17%) indicated that they were at university for personal reasons than for the seminar attenders (7%). Time was an important factor in choosing Athabasca University for only 13% of the seminar attenders, while 33% of the non-attenders indicated this was important. Distance was important for only 7% of the seminar attenders while 19% of the non-attenders indicated this was important. On the other hand, 60% of the seminar attenders indicated that financial reasons were important in choosing Athabasca University, whereas 26% of the non-attenders indicated this was significant. Interestingly there was not a tremendous discrepancy in the geographical distribution of attenders (47% from the seminar-based region) and the non-attenders (40% from the seminar-based region). The rural distribution was 27% for seminar attenders and 37% for non-attenders.

Table 14 goes here

Table 14 presents the results of combining data from the first cohort group and the second cohort group, that is, all seminar attenders compared with all non-attenders, irrespective of their receipt of an invitation to attend a seminar. The data indicates that more seminar attenders (50%) have completed the course and are progressing in the course (54% have written the first exam) than the non-attenders (28% have completed the course and 31% have written the first examination). However, in terms of the average time required to complete the course, there was less time taken by non-attenders (173.5 days as opposed to seminar attenders, 190.1).

Test of the Second Revisions. (That learners can be attracted to a seminar when attendance is not obligatory and when material covered in the seminar is not tested.) Table 10 indicates the attendance rates for Administration 232. For the seminar formats of enrichment only, the percentage of attendance was 13% of those invited, and for seminar two, 6% of those invited. On the other hand, with the specific "how-to" type of seminar the attendance rate was 21% of those invited, a substantial number in terms of the previous seminars (e.g. a whole classroom).

DISCUSSION

Survey of Results

The hypotheses of this study were separated into two sets, those concerned with the course-related motivational effects of attending seminars and those centered around the conditions under which learners would attend seminars (seminar-related motivation). The second set of

hypotheses came about when the evidence was clear that there was not support for the implicit hypothesis that learners would attend seminars which were optional, where material consisted of enrichment activities and where such content was not tested or given credit.

Table 15 goes here

Table 15 presents a summary of the overall relationship between hypotheses, courses and results. "Partially tested" hypotheses were ones that had limited data samples while "tested" hypotheses had larger samples. In a sense all course-related hypotheses were tested only in part since the study has not been completed and final learner completion data were not available. An expansion of the study to include more learners took place in Administration 232 under the First Revision and in Psychology 206 under the Second Revision. All hypotheses, except the attendance hypothesis, could only be partially supported, again owing to the incomplete nature of the data.

Course-Related Motivational Hypotheses

In general, the hypothesis that seminar attenders would have a faster rate of progress in the course and higher completion rate was partially supported. Indeed, rate of progress through the course, course completion rates, and even examination performance all favoured the group which attended at least one seminar. What was significant was not the differences, which were samll (see Table) but the consistency. There was an

educationally significant difference on completion rates for the first (or only) exam, depending on the course, in favor of seminar attenders (53% completion rate) compared to the non-seminar group (33% completion rate).

In Psychology 206, a comparison between the seminar attenders and the controls (First Revision Hypothesis) showed small but consistend differences which favoured the seminar attenders in terms of completion rate (25% compared to 18%), average course mark (85.6 compared to 84.1%) and average time to completion (233.0 days compared to 237.6). The largest difference favoured the seminar group in terms of the average examination completion rate (44% for the seminar attenders compared to 27% for the controls). These data appear in Table 16, which summarized data in Table 4. The generality of these data may be limited since there were only four in the seminar group.

Differences in course completion rate, performance and average completion rate of exams were much greater between seminar attenders and non-attenders who received invitations (see Table 16). In fact, even the control group outperformed this latter group in terms of course completion (18% compared to 0%), average mark (84.1% compared to 79.2%) and average examination completion rate (27% compared to 21%).

An examination of the differences in the first credit block between seminar attenders and non-attenders under the second revision (see Table 6) reveals the same pattern. The seminar groups outperformed the non-attenders groups with respect to number of learners writing the first exam (53% compared to 35%), average mark (84.7% compared to 79.9%) and rate of progress

to first exam (94.9 days compared to 103.1 days).

In summary, for Psychology 206, participants who attended at least one seminar tended to write the first examination consistently more often than members of a no-seminar, control group or a non-attenders group who received invitations. This finding is particularly significant since in this particular course, completion of the first examination increases the probability that the learner will complete the course. For instance, in the previous year, only 43% of those enrolling in the course actually wrote the first exam. Of those who wrote, 69% completed the course. In other words, writing the first exam was a significant event since two out of three learners who wrote, completed the course. Other differences in examination grades and rate of progress favoured the seminar attenders but were small compared to the control group, slightly greater compared to the non-attenders. Course completion rate differences did not consistently favour any group.

In Administration 232, from Table 11 under the original hypotheses, seminar attenders (contingent and non-contingent groups combined) outperformed the control group on the number of course completers (55% compared to 35%) and the number of examination writers (55% compared to 35%). The same pattern in favor of seminar attenders was even more pronounced for participants under the First Revision Hypotheses (see Table 12). Here, 47% of seminar attenders completed the course compared to 28% of non-attenders. Also, 54% of seminar attenders wrote the exam compared to 32% of non-attenders. Also 53% of seminar attenders wrote

the exam compared to 32% of non-attenders. Thus, for Administration 232, seminar attenders tended to complete the examination and the course more often than non-attenders.

Attendance Hypotheses

There was strong support for the hypothesis that course-specific seminar material will motivate more learners to attend than seminars based on enrichment activities alone. As reported in Table 3, attendance rates were almost three time as high for course-specific seminars compared to course-enrichment seminars.

This finding does not necessarily mean that the two types of seminars need to be exclusive of one another but rather the course-specific format may be a better starting point in terms of the learner's motivation to attend than a course-enrichment seminar. It is possible that an effective course-specific seminar could lead to separate course-enrichment seminars or a combination of the two types, without a drop and perhaps even an increase in attendance. It happened on many occasions in the present study that learners in the course-specific seminars showed great interest in pursuing topics, that when offered in the course-enrichment mode only attracted very little interest.

It is interesting to note that those learners who attended a seminar, regardless of content, uniformally gave a high rating to it. On a five point rating scale from not at all useful (1) to exceptionally useful (5), the average rating for all seminars by all learners was 4.2 (see Table 17).

Causality

Relationships between variables investigated in this study were of a correlational rather than causal nature. It would be erroneous to assume that because there was a tendency for seminar attenders to do better along certain dimensions than non-attenders that somehow the seminars were responsible. Furthermore, it would compound the error if it were assumed that by getting learners out to seminars that that would ensure better performance in the course. The fact is that in spite of the researcher randomly assigning learners to various seminar conditions (e.g. seminar group and no-seminar (control group) learners always self-selected whether or not they would attend (i.e. attendance was only under researcher control in a very limited way). Consequently, course success may be more of a function of motivational and ability characteristics in those who attended seminars than in the seminars themselves. This may be the case, especially in comparisons where a control group was not involved, such as between seminar attenders and non-attenders, who also received invitations. Regardless, the correlational nature of the relationship remains true such that those attending seminars tended to be those who were more successful along specific dimensions than those who did not attend.

Accessability Characteristics

Since learners were very much involved in the decision of whether or not to attend seminars, it was most important to examine who these people were. Given the heterogenerity of the open university learner population, it would be dangerous to overgeneralize. Therefore, learner characteristics

in Psychology 206 and Administration 232 will be treated separately.

The greatest difference between seminar attenders and non-attenders who received invitations in Psychology 206 was their home location (see Table 9). The vast majority of seminar attenders came from the greater Edmonton region (86%) while relatively few (9%) came from rural regions. Non-attenders, though, tended to be evenly distributed between the Edmonton region (38%) and rural areas (32%). Most seminar attenders were at university for career-related reasons, tended to be in the transfer nursing program and had more college and university credit than non-attenders. Non-attenders, on the other hand, tended to be taking the course for more personal reasons (40%) than seminar attenders (5%).

The distinguishing profile of the seminar attenders in Psychology 206 is quite clear: a professional living in the greater Edmonton region who needed the course for advancement in their career (e.g. Nursing) who was likely to have some credit in higher education (55%) and was taking the course in the open university context to save time (55%).

On the other hand, the profile of the non-attenders was almost impossible to describe. This group was best characterized by its diversity. The largest groups (40%) were taking the course for personal reasons and taking it in the open university to save time (40%). A significant number (38%) lived in the greater Edmonton region. One implication from these data is that seminar attendance might be enhanced by targeting seminars for special interest groups within the course (e.g. as seemed to have happened here with a large number of nursing transfer students).

There were fewer distinctions between seminar attenders and non-attenders in Administration 232 (see Table 13). By far the greatest difference between attenders and non-attenders was financial. More seminar attenders recorded that they took the course at the open university for financial reasons (60%), presumably because it was cheaper, compared to non-attenders (26%). More seminar attenders tended to be married (73%) and in the Bachelor of Administration program (80%) than non-attenders (51% and 59%, respectively). Finally, more non-attenders (33%) stated time as a major factor in taking the course in an open university compared to attenders (13%).

The distinguishing profile for a seminar attender in Administration 232 was generally a married person enrolled in the Bachelor of Administration Program for career-advancement reasons who was taking the course through the open university largely to save money. The non-attender's profile was much harder to generalize. About all that could be said was that most were in the course for career advancement and a small minority were enrolled in the Bachelor of Administration Program.

In short, as in Psychology 206, the seminar attenders appeared to be easier to identify upon certain dimension that the non-attenders. While it was possible to make one or two observations about seminar attenders, it was almost impossible to say any one thing about non-attenders. A comparison of personal characteristics between seminar attenders in Psychology 206 and Administration 232 bore out the caution about generalizing distinct courses. Few similarities, but a number of major

differences were apparent (e.g. home location, reason at the open university).

Finally, one set of observations concerning expressed preference in learning situations should be examined. On the registration questionnaire all learners are asked to state their preferred learning situation: on their own, in a group, some combination of the two, or not sure. In terms of the face-to-face group contact for courses in this study, which was a combination, this was not a dimension which clearly separated seminar attenders (47% preferred some combination) from non-attenders (40% preferred some combination). Furthermore, one might be tempted to wonder what it means when such a large proportion of non-attenders indicated a preference for a combination mode of course delivery, but when offered it, did not attend. Of the several possible interpretations it is likely that seminar attendance is influenced most strongly by variables (e.g. convenience, confidence level) other than expressed preferred learning style.

Seminars as a Part of Context

The decision to hold seminars in an open university is no small matter. It is influenced by a host of considerations and sets into motion a major series of decision-making tasks. Specifically, the decision to hold seminars is affected by such factors as the nature and goals of the course (e.g. chemistry course with laboratory requirement), the biases of the person in charge of the course, the values of the institutional administration, the availability of resources for seminar delivery, and perhaps most important, the geographical distribution and types of

learners in the course.

In this study, seminars were offered in conjunction with, and as an optional supplement to, the regular home-based course package. Making seminars an option was undoubtedly a weak treatment in terms of generating attendance, but was probably educationally sound since they were not necessary for all learner in order for them to pass the courses. To the contrary, if seminars had been compulsory it may have eliminated a number of learners form the course who for want of time or distance would have been unable to participate. For example, in these courses, between one quarter and one third of the learners lived in a rural locality. Furthermore, offering the courses exclusively by seminar was not an option for investigation here since the institution's modus operandi was home-based packages based on its open education mandate. Given this context, the question becomes not, "Should we hold seminars?" but, "When should seminars be held and for whom?".

Trait-Treatment Interaction

One problem with an instructional treatment such as the standard home-based course package is that it is developed as if it were equally appropriate for all learners. Given the heterogenerity of the open university learner population as exemplified in these courses, that assumption is absurd and undoubtedly is a major contribution to the high drop out rates (e.g. over 50% in 206 and 232). The role that periodic seminars can play is in helping to tailor the course package to the needs

of that segment of the learner population who will attend. Evidence from this study suggests that seminars can act as a motivator, organizer, and confidence builder for a certain segment of learners who already possess the ability to do the course. It is quite likely that there is a different segment of learners who could be helped only with intensive sets of seminars on a remedial basis, in addition to the course package.

To summarize in terms of seminars, the challenge for each course delivery team is twofold. First, they must decide whether or not seminars provide a likely access point to students in their home-based course. Second, they must determine the point of diminishing returns, where the frequency, content or process of seminars ceases to have sufficient individual or group impact to warrant the effort.

It must be clear that to make these decisions requires a regular periodic update on the kinds of learners in the course. Much more must be done to ensure that course coordinators and delivery teams have ready access to such information. Profiles must be developed on the kinds of learners in each course. One shortcut to wading through endless student characteristic data might be to identify special groups within the course (e.g. nursing students, police officers, home keepers). It is unlikely that specific courses will serve everyone. Special groups will almost always exist within courses and the major questions are who are they now, how many are there, and can they be reached by seminar? As investigations reviewed earlier had suggested and as confirmed in this study, there is usually a proportion of learners in open education who do not want

seminars at all. The job of future research is to determine which of the various groupings, on such dimensions as occupation, age, program, region, educational background, etc. can be matched to particular types of seminars to increase the probability of success for learners in the course. In the present study in Psychology 206, it became clear that seminars were meeting a need for nurses located in the greater Edmonton region who were taking the course to help qualify for the Post Registered Nursing Degree program offered at the University of Alberta.

Finally, given the high drop-out rate before the first exam (non-starters) and the relative success of those who do write it, in courses such as Psychology 206, it makes sense to offer seminars to those learners who are working on the first credit block. Thus, seminars are one way that instructors can tailor a standard home-based course package to the needs and concerns of a changing and diverse student body.

Limitations of Data

A number of cautions should be stated regarding the generality of the data presented in this study. First, much of the data concerning course completion and performance is incomplete particularly in Psychology 206 since learners had not yet finished the course. A follow-up repeat analysis is needed to confirm the preliminary patterns identified here. Second, as stated previously, the results presented here are of a strictly correlational nature and statements about seminars causing an effect (e.g. higher completion rates on the first credit block) are not warranted. Third, the data presented here reflect the effects of three seminars per course, presented as a supplement to a standard home-study course,

and offered strictly as an option. It is possible that increasing the number of seminars or making attendance compulsory could have improved learner performance in the course beyond what the data suggested here. On the other hand, one of the limiting factors in carrying out research in an open education context is the "closedness" of research design which counteracts the spirit of the innovation. Fourth, there were certain limitations to the confidence level of the university data base. For example, data on numbers of learners requesting extensions was most difficult to retrieve and data on time taken to complete the course was often unreliable, depending on the nature of data entry. Fifth, one assumption that was made was that those sent invitations in the mail actually received them, or at least the misses occurred randomly across groups. It is possible that some biasing factor, known only to the post office, was at work. However, it did not appear that there was any obvious bias such as between urban and rural learners. Finally, because of continuous enrollments, high attrition and the need to control for time of enrollment, because of changing learner characteristics, it was almost impossible to study more than two educational conditions at one time in one course.

Conclusion

To conclude, data at this point in the research study indicated that on certain dimensions of course performance, particularly the completion

rates for the first credit block, learners who attended seminars tended to do better than learners who did not attend. It could not be specified here whether these differences were a function of the seminar, the people attracted or some combination. In addition, there was support for the hypothesis that learners could be attracted to seminars when attendance was not obligatory and material covered was not explicitly given credit. To the contrary, there was very little support from these data to the notion that great numbers of "isolated" learners in the open university could be attracted to seminars for social reasons, regardless of topic.

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Footnotes

1. Requests for more details and a sample of the invitation package should be directed to the author.

Figure 1

An Overview of Various Means of Group Contact With Particular Attention to Seminars

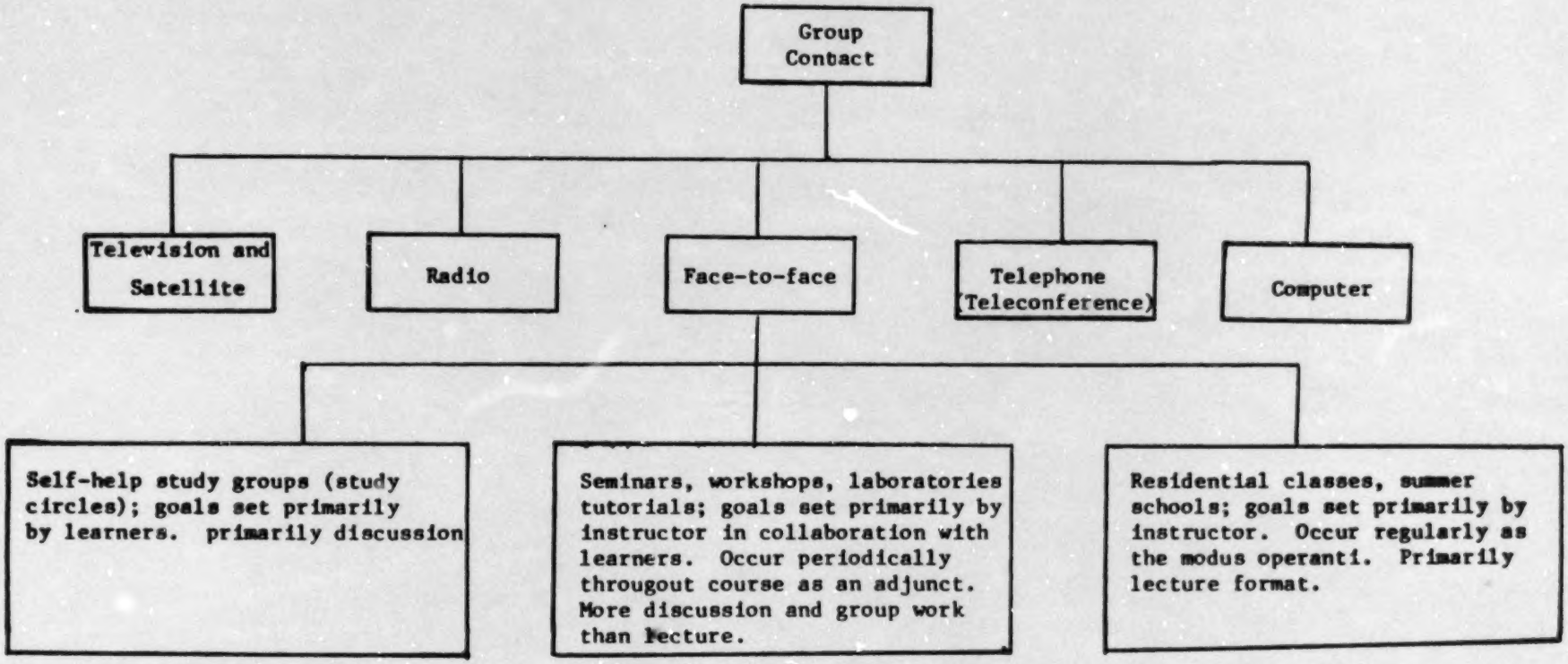
Group Contact
Television and Satellite
Radio
Face-to-face
Telephone (Teleconference)
Computer
Self-help study groups (study circles); goals set primarily by learners. primarily discussion
Seminars, workshops, laboratories tutorials; goals set primarily by instructor in collaboration with learners. Occur periodically througout course as an adjunct. More discussion and group work than lecture.
Residential classes, summer schools; goals set primarily by instructor. Occur regularly as the modus operanti. Primarily lecture format.

Table 1

General Seminar Format for Psychology 206 and Administration 232

Seminar Outline

Activity	Time
Welcome and Introduction	9:30 a.m. - 9:40 a.m.
Brief comments about seminar project	9:40 a.m. - 9:50 a.m.
Overview of session	9:50 a.m. - 10:00 a.m.
Lecture/discussion/group work	10:00 a.m. - 11:00 a.m.
Coffee break and discussion	11:00 a.m. - 11:15 a.m.
Lecture/discussion/group work	11:15 a.m. - 12:10 p.m.
Conclusion	12:10 p.m. - 12:20 p.m.
Feedback forms	12:20 p.m. - 12:30 p.m.
End	12:30 p.m.

Table 2

A Summary of Course Progress and Performance Data Averaged Across Psychology 205 and Administration 232

	Seminar Attenders	Non-Attenders (received invitations)
N	34	124
Completers	8 (24%)	26 (21%)
Exam writers	18 (53%)	41 (33%)
Average marks	82.3	79.4
Average # of days	139.3	140.0

Table 3

A Summary of Seminar Attendance Data Averaged Across

Psychology 206 and Administration 232

Seminar Format	# of Seminars Delivered	Average # of Invitations Sent Per Seminar	Average # of Learners Attending Per Seminar	Average Percentage of Attendance Per Seminar
Course-enrichment	3	71	6.3	8.9%
Course-specific	3	67	16.3	24.3%

Table 4

A Summary of Completion Performance and Rate of Progress Data for Hypotheses in the First Revision in Psychology 206

	Seminar Attenders	Controls (No Seminars, No Invitations)	Non-Attenders who Received Invitations	Total Non-Attenders (Regardless of Invitation)
N	4	28	22	47[1]
Completers	1 (25%)	5 (18%)	0 (0%)	5 (11%)
Exam 1: Writers	2 (50%)	12 (43%)	7 (32%)	19 (40%)
Average Mark	80.0	79.6	77.5	78.8
Average Time to Write (Days From Start of Course)	110.0	106.7	155.6	124.7
Exam 2: Writers	2 (50%)	9 (32%)	4 (18%)	13 (28%)
Average Mark	79.0	85.2	77.5	82.8
Average Time to Write (Days From Start of Course)	178.0	174.7	180.0	176.3
Exam 3: Writers	2 (50%)	5 (18%)	3 (14%)	8 (17%)
Average Mark	84.5	81.6	82.7	82.0
Average Time to Write (Days From Start of Course)	248.0	205.6	218.7	210.5
Exam 4: Writers	1 (25%)	4 (14%)	--	4 (9%)
Average Mark	99	89.8	--	89.8
Average Time to Write (Days From Start of Course)	233.0	237.6	--	236.8

[1]Three cases were lost during data analysis

Table 5

A Comparison of Personal Characteristics Between Seminar Attenders and Non-Attenders who Received Invitations for Hypotheses in the First Revision of Psychology 206

	Seminar Attenders	Non-Attenders who Received Invitations
N	4	22
Reason at University:		
Career	25%	36%
Educational	50%	14%
Personal	0%	50%
Reason at Athabasca University:		
Time	75%	50%
Region: Edmonton	100%	36%
Program:		
B. A.	50%	9%
Not Sure		
Nursing Transfer	50%	17%
Educational Background:		
College or University	50%	26%
Studying Time: 11+ hours per week	50%	41%

Table 6

Completion Performance and Rate of Progress Data for Seminar Attenders and Non-Attenders (Who Received Invitations) for Hypotheses in the Second Revision of Psychology 206

	Seminar Attenders	Non-Attenders (Received Invitations)
N	19	46
Completers	1 (5%)[1]	4 (9%)
Exam 1: Writers	10 (53%)	16 (35%)
Average Mark	84.7	79.9
Time to Write (Days From Start of Course)	94.9	103.1
Exam 2: Writers	3 (15%)	9 (20%)
Average Mark	89.7	85.3
Time to Write (Days From Start of Course)	142.0	162.7
Exam 3: Writers	--	6 (13%)
Average Mark	--	81.8
Time to Write (Days From Start of Course)	--	180.8
Exam 4: Writers	--	4 (9%)
Average Mark	--	87.0
Time to Write (Days From Start of Course)	--	175.8

[1]This person enrolled for only half the course. The average time to completion was prorated for the entire course assuming the same rate of progress.

Table 7

A Comparison of Personal Characteristics Between Seminar Attenders and Non-Attenders (Who Received Invitations) for Hypotheses in the Second Revision of Psychology 206

	Seminar Attenders	Non-Attenders
N	19	46
Program:		
Nursing Transfer	58%	26%
Reason at University:		
Career	84%	34%
Personal	5%	34%
Region:		
Edmonton	84%	40%
Rural	11%	36%

Table 8

A Comparison of Course Completion Performance and Rate of Progress Data for All Seminar Attenders and All Non-Attenders Combined Across Original Hypotheses and First Revision Hypotheses for Psychology 206

	Seminar Attenders	Seminar Non-Attenders[1]	Seminar Non-Attenders[2]
N	23	69	93
Completers	2 (9%)	4 (6%)	9 (10%)
Exam 1: Writers	12 (52%)	23 (34%)	34 (37%)
Average Mark	83.9	79.2	79.2
Average Time to Completion (Days From Start of Course)	97.4	119.1	112.5
Exam 2: Writers	5 (22%)	13 (19%)	22 (24%)
Average Mark	85.6	82.9	83.8
Average Time to Completion (Days From Start of Course)	156.4	168.0	170.8
Exam 3: Writers	2 (9%)	8 (13%)	14 (15%)
Average Mark	84.5	82.1	81.9
Average Time to Completion (Days From Start of Course)	233.0	175.8	197.8
Exam 4: Writers	1 (4%)[3]	4 (6%)	8 (9%)[3]
Average Mark	99.0	87.0	88.4
Average Time to Completion (Days From Start of Course)	248.0	193.4	210.1

[1] who received invitations but did not attend

[2] irrespective of receiving an invitation

[3] two completers enrolled for only half of the course. Their data are only included in the first two sets of exams.

Table 9

A Comparison of Personal Characteristics Between Seminar Attenders and Non-Attenders Combined Across First Revision and Second Revision Hypotheses of Psychology 206

	Seminar Attenders	Seminar Non-Attenders[1]	% Point Difference
N	23	69	
Program:			
Transfer	5%	24%	19
Not Sure	0%	19%	19
Nursing Transfer	55%	21%	34
Reason at University:			
Career	73%	34%	39
Personal	5%	40%	35
Reason at Athabasca University:			
Time	55%	40%	15
Region:			
Edmonton	86%	38%	48
Rural	9%	32%	23
Educational Background:			
College plus some university	55%	34%	21

[1]Received invitations but did not attend

Table 10

A Summary of Seminar Attendance for the Second Revision Hypotheses of Psychology 206 and Administration 232

	Seminar #	# of Invitations Sent	# of Positive Responses	% of Those Invited	Total # Attending	% of Those Invited Who Attended
206	1	38	7	18%	4	11%
	2	41[1]	28	68%	18	44%
	3	41[2]	6	15%	6	15%
232	1	60	--	--	8	13%
	2	114	10	8.7%	7	6.1%
	3	119	21	17.7%	25	21%

[1], [2]These numbers represent the "functional" invitations. Functional invitations were defined as including new students who enrolled in the course within the four months preceding the seminar date. It did not make sense to include invitations which went out to student enrolled earlier than the four month period because these students had either dropped the course or were well on in the course and did not require support (i.e. were not new). Data analysis indicated that no one who had been in the course for four months or more attended a seminar or even indicated willingness to attend. This problems was not so acute in Administration 232 since the course was only six months. However, percentage of those invited who attended is likely conservative since drop outs were included within the invitations sent out in seminars 2 and 3.

Table 11

A Comparison of Course Completion, Performance and Rate of Progress Data for the Original Hypotheses of Administration 232

	Seminar Attenders[1]	Seminar Attenders[2]	Seminar Attenders[3]	Controls[4]
N	11	3	8	17
Completers	6 (55%)	--	6 (75%)	6 (35%)
Exam Writers	6 (55%)	--	6 (75%)	6 (35%)
Average Marks	79.0	--	79.0	84.7
Average Time to Write (Days From Start of Course)	198.3	--	198.3	178.3
Time To Complete (Days)	198.3	--	198.3	178.3

[1]Contingent and non-contingent

[2]Contingent

[3]Non-contingent

[4]Non-attenders, no invitations

Table 12

A Comparison of Completion, Performance and Rate of Progress Data Between Seminar Attenders and Non-Attenders (Who Received Invitations) for First Revision Hypotheses in Administration 232

	Seminar Attenders	Non-Attenders
N	15	78
Completers	7 (47%)	22 (28%)
Exam: Writers	8 (53%)	25 (32%)
Average Mark	79.9	78.9
Average Time To Write (Days From Start of Course)	183.9	176.2

Table 13

A Comparison of Personal Characteristics Between Seminar Attenders and Non-Attenders (Who Received Invitations) for First Revision Hypotheses in Administration 232

	Seminar Attenders	Non-Attenders (Who Received Invitations)	% Point Differences
N	15	78	
Reason at University:			
Career	12 (80%)	53 (68%)	12
Personal	1 (7%)	13 (17%)	10
Reason at Athabasca University:			
Time	2 (13%)	26 (33%)	20
Distance	1 (7%)	15 (19%)	12
Financial	9 (60%)	20 (26%)	34
Region:			
Edmonton	7 (47%)	31 (40%)	7
Rural	4 (27%)	29 (37%)	10
Program:			
B. Admin	12 (80%)	46 (59%)	21
Marital Status:			
Married	11 (73%)	40 (51%)	22

Table 14

A Comparison of Completion, Performance and Rate of Progress Data Between Seminar Attenders and Non-Attenders (Irrespective of Invitations) for Original Hypotheses and First Revisions in Administration 232

	Seminar Attenders	Non-Attenders (Irrespective of Invitations)
N	26	90
Completers	13 (50%)	25 (28%)
Exam Writers	14 (54%)	28 (31%)
Average Mark	79.5	80.0
Average Time (Days)	190.1	173.5

Table 15

A Summary of the Overall Relationship Between Hypotheses, Courses and Results

Course-Related Motivational Hypotheses	Psychology 206	Administration 232
Original	not tested	partially tested partially supported (contingent, non-contingent, control groups)
First Revision	partially tested partially supported (seminar, control groups)	tested partially supported (attenders, non-attenders groups)
Second Revision	tested partially supported (attenders, non-attenders groups)	not applicable
Attendance Hypothesis (seminar-related motivation)	tested supported	tested supported

Table 16

A Further Summary from Table 4 of Course Completion, Performance Data in Psychology 206 for First Revision Hypotheses

	Seminar Attenders	Controls	Non-Attenders (Who Received Invitations)
N	4	28	22
Course Completion Rate	25%	18%	0%
Average Mark	85.6%	84.1%	79.2%
Average Examination Completion Rate	44%	27%	21%

Table 17

Generalized Learner Perceptions of Seminars in Psychology 206 and Administration 232

Course	Seminar #	Format	Total # Attending	Rating Forms Received	Overall Rating %	Rating 1 - 5[1]
206	1	Enrichment	4	1	25	4.
	2	Course-Specific	18	18	100	4.2
	3	Course-Specific	6	3	50	4.2
232	1	Enrichment	8	7	91	4.4[2]
	2	Course-Enrichment	7	7	100	4.5[2]
	3	Course-Specific	25	25	100	4.
Average						4.2

[1] 1 = not at all useful, 2 = exceptionally useful

[2] These ratings included a special group who were excluded from other data analysis but could not be in this case since the rating forms were completed anonomously.